

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listing of claims, in the Application.

Listing of claims:

1. (Currently amended) A method of maintaining a two-byte identification field of an Internet protocol (IP) header of a packet of data, the packet of data being transmitted over a network, the method comprising the steps of:

determining whether the packet of data is permitted to be fragmented before being transmitted over the network, ~~the network being a Gigabit Ethernet network~~ wherein an identification number can be used more than once within a particular time span;

~~setting a re-assembly timer to 30 seconds; and~~

using a unique identification number in the IP header of the packet of data if the packet of data is permitted to be fragmented, the unique identification number being a number that will not be used in the IP header of any other packet of data within the particular time span; and

using a non-unique identification number in the IP header of the packet of data if the packet of data is not permitted to be fragmented, the non-unique identification number being a number that is used in the IP header of all packets of data that are not permitted to be fragmented to facilitate using unique identification numbers in the network.

2. Canceled.

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3. Canceled.
4. (Currently amended) The method of Claim 1 wherein a bit is set in the IP header to indicate whether the packet is permitted to be fragmented.
5. (Original) The method of Claim 4 wherein the bit is set in a flag field of the IP header.
6. (Currently amended) A computer program product on a computer readable medium for maintaining a two-byte identification field of an Internet protocol (IP) header of a packet of data, the packet of data being transmitted over a network, the computer program product comprising:

code means for determining whether the packet of data is permitted to be fragmented before being transmitted over the network, ~~the network being a Gigabit Ethernet network wherein an identification number can be used more than once within a particular time span;~~

~~code means for setting a re-assembly timer to 30 seconds; and~~

code means for using a unique identification number in the IP header of the packet of data if the packet of data is permitted to be fragmented, the unique identification number being a number that will not be used in the IP header of any other packet of data within the particular time span; and

code means for using a non-unique identification number in the IP header of the packet of data if the packet of data is not permitted to be fragmented, the non-unique identification number being a number that is

used in the IP header of all packets of data that are not permitted to be fragmented to facilitate using unique identification numbers in the network.

7. Canceled.
8. Canceled.
9. (Currently amended) The computer program product of Claim 6 wherein a bit is set in the IP header to indicate whether the packet is permitted to be fragmented.
10. (Original) The computer program product of Claim 9 wherein the bit is set in a flag field of the IP header.
11. (Currently amended) An apparatus for maintaining a two-byte identification field of an Internet protocol (IP) header of a packet of data, the packet of data being transmitted over a network, the apparatus comprising:

means for determining whether the packet of data is permitted to be fragmented before being transmitted over the network, ~~the network being a Gigabit Ethernet network wherein an identification number can be used more than once within a particular time span;~~

~~means for setting a re-assembly timer to 30 seconds; and~~

means for using a unique identification number in the IP header of the packet of data if the packet of data is permitted to be fragmented, the unique identification number being a number that will not be used in the IP header of any other packet of data within the particular time span; and

means for using a non-unique identification number in the IP header of the packet of data if the packet of data is not permitted to be fragmented, the non-unique identification number being a number that is used in the IP header of all packets of data that are not permitted to be fragmented to facilitate using unique identification numbers in the network.

12. Canceled.
13. Canceled.
14. (Currently amended) The apparatus of Claim 11 wherein a bit is set in the IP header to indicate whether the packet is permitted to be fragmented.
15. (Original) The apparatus of Claim 14 wherein the bit is set in a flag field of the IP header.
16. (Currently amended) A computer system for maintaining a two-byte identification field of an Internet protocol (IP) header of a packet of data, the packet of data being transmitted over a network, the computer system comprising:

at least one memory device for storing code data; and

at least one processor for processing the code data to determine whether the packet of data is permitted to be fragmented before being transmitted over the network; ~~the network being a Gigabit Ethernet network wherein an identification number can be used more than once within a particular time span, to set a re-assembly timer to 30 seconds, and use a unique identification number in the IP header of the packet of data if the packet of data is permitted to be fragmented, the unique identification number being~~

a number that will not be used in the IP header of any other packet of data within the particular time span, and to use a non-unique identification number in the IP header of the packet of data if the packet of data is not permitted to be fragmented, the non-unique identification number being a number that is used in the IP header of all packets of data that are not permitted to be fragmented to facilitate using unique identification numbers in the network.

17. Canceled.
18. Canceled.
19. (Currently amended) The computer system of Claim 16 wherein a bit is set in the IP header to indicate whether the packet is permitted to be fragmented.
20. (Original) The computer system of Claim 19 wherein the bit is set in a flag field of the IP header.